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ABSTRACT

A study was conducted to develop and validate a procedure for efficiently identifying critical affective behaviors necessary for success in a given role or job. Subjects were 2 groups of 10 cosmetology instructors each and 1 group of 10 employers of cosmetologists. Three instrument packages were used: the first was used by all members of the three groups to generate individual lists of affective behaviors necessary to perform the functions of a cosmetologist; the second was used by one coordinator from each group to develop a combined list that included all contributions of each member of the group and eliminated repetitions; the third used the combined list to generate ratings of each behavior from each of the subjects in terms of importance to success on the job. A 6-point Likert scale was used to generate the ratings. Analyses indicated that the extent of disagreement on the exact job-related affective behaviors important to success as a cosmetologist between groups was large. The overall conclusion was that the Performance-Based Affective Behavior Identification (PBABI) process is an effective one for identifying role-related affective behaviors. The procedure can be implemented through the mail and produces lists of affective behaviors stated in a behavioral format that represents group consensus. (Includes 32 references and 8 appendices containing project letters, the PBABI module, and mean ratings and frequencies of behaviors.) (CML)

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The Identification and Stability of Occupationally Specific Affective Behaviors

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May 1990

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CHAPTER 1

INTRODUCTION

It has been said that more people lose their jobs due to inappropriate affective behavior than due to a lack of ability to perform job skills. Affective behaviors are defined as emotional tones toward something. They are often expressed as feelings, attitudes, and habits. They are recognized through body language (e.g., smile vs. frown), the selection of words (e.g., you look great vs. you look dumb), the way words are communicated (e.g., conversational voice vs. loud, accusing voice), and other observable traits (Pucel, 1989).

In 1950, Prosser and Quigley suggested that "human attitudes toward employments are and will remain the dominant factor in economic production" and without these attributes, skill and technical knowledge are "of but little avail" (p. 94). They described vocational education as essentially a matter of establishing habits focused on thinking, doing, and the ability to adapt to the work environment and relationships with co-workers and supervisors.

At about the same time, Thorne, Boles, and O'Leary (1950) postulated that work habits could be learned through intensive training, an idea that was contrary to the view that work attitudes and habits were incidentally or haphazardly acquired as by-products of skill training.

Butler (1972) stressed the importance of affective behaviors as critical to occupational success. He indicated:

> Outwardly, the emphasis [of vocational education] may appear to be on job training; and in a way it is, but only in the broadest sense. Actually, the primary concern must always be the student's physical, emotional, and social development--his living and working habits and attitudes. (p. 4)

Miller and Rose (1975) stated:

> Good attitudes and study habits have been considered to be natural by-products of well organized and effective training programs. . . . However, educators are coming more and more to realize that the identification and development of behaviors in the affective domain (feelings, values, attitudes) must be given greater attention . . . they must be identified more precisely and developed through carefully planned learning strategies just as we have done for other forms of behavior (doing and knowing). (p. 5)

Pucel and Knaak (1975) recognized affective behaviors as a set of general attitudes a person should exhibit while performing tasks.

Even though these and other writers concerned with vocational curriculum development have recognized the importance of affect, the curriculum procedures they advocated have not reflected that concern. Actual curriculum development procedures have concentrated on the psychomotor dimensions of occupations identified through traditional job analysis. Such job analyses yield duties (functions) and tasks followed by the identification of related knowledge, with little or no explicit procedural methods for incorporating affective behavior into the curriculum development process.

Curriculum procedures used in vocational education have reflected societal conditions at the time they were being developed. They were developed as a response to the "industrial age" when people had to be predominately trained to manipulate tools, machines, and objects. That training required a concentration on the psychomotor domain. Paul Strassmann (1985) suggested:

> The underlying assumptions about what "productivity" is go back to the industrial-age model of what a person, aided by a machine, does. [They were that] the handling of complexity requires information which is a manager's, not a worker's, prerogative. A person's superior coordination of eye and hand are what wages will purchase--until improved machines buy it for less. A person's brain is not a valuable asset per se under such assumptions, because the engineer designs into the manufacturing sequence everything which needs to be done. The employee's thinking is only useful insofar as it retains simple procedural instructions. (pp. 103-104)

Although none of the curriculum development writers in vocational education would explicitly support these assumptions, the curriculum development procedures they propose have implicitly supported them. The curriculum development procedures proposed by Butler (1972) concentrated on psychomotor tasks with a lack of curriculum development emphasis on affective behaviors. No explicit procedures were presented for developing affective instruction. Miller and Rose (1975) included procedures for only the cognitive and psychomotor domains, "as they are the easiest to identify and describe" (p. 52). Pucel and Knaak (1975) indicated that "major attention must be given the job tasks which become the basis for vocational instruction" (p. 64). Although they addressed assessment of affective performance, they did not provide explicit methods for teaching affective behavior.

This lack of emphasis on the affective domain has continued with the competency-based vocational education movement. When the Florida Division of Vocational, Adult and Community Education (Florida, 1985) defined the major elements of competency-based vocational education curriculum development, they also made affective behavior subordinate to psychomotor behavior. They indicated "Competency-based vocational education (CBVE) focuses on the occupational skills ("competencies") trainees are expected to achieve, and the performances of those competencies" (p. 5). They defined competencies as "those observable skills incumbent workers use on the job--the things they actually get paid to do. Knowledge and attitudes are considered to be integral to the

occupational competencies to which they are related, not separate entities, and are taught and learned as such" (p. 6). This publication also fails to address the need for explicit procedures for teaching job-related affective behavior.

Besides the past lack of procedures for the identification and development of occupational curriculum related to affective behaviors, another barrier contributing to the void of curriculum focused on occupational affective behavior has been a conscious avoidance of instruction in this area. Essex and Liu (1974) related a resistance to dealing with affective behaviors to students' perceived right to privacy and the belief that schools should not intervene in this area by attempting to teach attitudes.

Human rights legislation and educational movements related to the development of the individual have also been viewed by vocational educators as being in opposition to teaching affective behaviors. An examination of legislation related to this issue shows this view to be incorrect. The Uniform Guidelines for Employee Selection (EEOC Guidelines) (Federal Register, 1978) are primarily concerned that content taught be justified based on job relatedness. These guidelines indicate that if skills can be shown to be related to job success, they can legitimately be required in a training program or a selection system used to make employment decisions. This includes affective behaviors as well as other types of behavior.

The key to resolving the dilemma between avoiding teaching affective behaviors because of possible infringement on individuality, and the increasing awareness of the need to explicitly train people in affective behaviors to adequately prepare them for successful employment, seems to lie in the development of methodologies which can identify critical job-related affective behaviors. People wishing to be trained to succeed in a job would then recognize that they must develop those behaviors as a basis for job success, just as they must develop critical psychomotor and cognitive behaviors. Such behaviors would also be viewed as legitimate content in terms of social policy and legislation.

Increasing Concern for Teaching Job-Related Affective Behavior

During the 1970s and 80s, the emphasis on the pervasive impact of affective behaviors on job performance has been increasing. It has become generally accepted that we have moved into the "information age" which requires increased amounts of cognitive and affective behavior on the job. Affective behaviors have been linked to job satisfaction, successful transition from school to work, organizational development, and job success. Beach, Kazanas, and Smith (1982) indicate that from the workers' standpoint, job satisfaction is linked to successful affective behaviors in the areas of interpersonal skills, and relationships with co-workers and employers. Brauchle and Petty (1983) report that success in the transition from school to work is linked to the acquisition of certain

affective behaviors. Beach, Kazanas, Sapko, Sisson, and List (1978) indicate that affective behavior relates to a person's ability to adapt to change in organizations.

The increased concern for job-related affective behavior has led to research focused on methodologies for identifying and teaching affective behavior. That research has raised a number of methodological concerns associated with addressing affective curriculum. Two difficulties cited are (a) defining what employers want and expect, and (b) the development of curriculum objectives compatible with the needs of business and industry (Banks, 1973; O'Neil & Nelson, 1978). Problems with procedures for identifying affective behaviors have been cited by Atwood (1973). Difficulties with measurement due to the diverse ways attitudes and feelings are shown by different people have also been reported by researchers at Ohio State University (1977).

Specificity of Affective Behaviors

There has been a debate in the literature regarding the specificity with which affective behaviors should be stated. Some people suggest that affective behaviors should be identified and stated as a list of general work-related attitudes. Others suggest that affective behaviors should be stated in a behavioral format (verb-object) in reference to specific jobs, just as tasks have traditionally been analyzed.

A number of researchers have developed lists of general work-related attitudes. The lists have been given general titles such as "nontechnical competencies," "occupational survival skills" (OSS), and "affective work competencies" (AWC). Generally, these generic lists have been developed through literature reviews with input and validation from panels of experts without reference to specific occupations. For example, Santopolo and Kell (1973) interviewed workers who had been on the job for more than three months, and analyzed critical incidents in order to determine behaviors that were critical to effective performance of the job. They produced a list of behavior statements (e.g., "working closely and continuously with clients," and "being positive, enthusiastic").

O'Neil and Nelson (1978) started the development of their OSS list with more than 500 items derived from a literature review and interviews. They stated skills as phrases (e.g., "to be dependable," and "to get along with people with a variety of personalities").

Walls, Zane, and Werner (1979) sent an ad for existing checklists to journals, schools, and rehabilitation facilities, and developed their own checklist from the 200 lists which were received in response to the advertisement. They created a checklist of behaviorally defined skills accompanied by conditions and standards. An example is "Client will ask the co-worker if the client can assist." Luft (1980) began with a list of 95 occupational survival skill competencies. The original list was condensed to 31 items by a panel of experts. He stated the competencies in behavioral terms (e.g., "the student uses time to the best advantage of the company").

Beach et al. (1982) started the development of their AWC list with a computerized literature review that identified 59 items. The original items were later consolidated into 15 clusters "according to their common elements." They used adjectives to describe competency clusters (e.g., "Pleasant/Friendly/Cheerful") and verbs or descriptive phrases to describe criterion behaviors (e.g., "smiles," "greets others," "speaks favorably") within clusters.

Although these lists of general attitudes and affective competencies or behaviors are valuable in describing the qualities which workers might possess in order to make them successful, they are often viewed as not being precise enough to focus curriculum in a specific occupational program. Prosser and Quigley (1950) wrote:

> Some habits may be common to all occupations. Promptness is a necessary habit common to all employment and anyone who has acquired a life habit of promptness has to this extent desirable environment habits. On the whole, however, each occupation makes its own demands as to the thinking, doing, and environment habits which it expects of the successful worker. This being true, vocational education finds it necessary to discard any idea of training in the fundamentals of thinking, or of doing, or of adaptation to environment, even if it be assumed that there are any such things as these fundamentals. Instead it sets up the theory of specific occupational requirements as follows: Each occupation has its own set of doing habits and thinking habits which carry over very little into other occupations. Therefore all vocational training must be specific in terms of the particular occupation for which the individual is to be trained. (p. 219)

Beach (1981) stated that "just as the requisites of skill and knowledge are different among occupations, it was revealed that the affective characteristics workers possess also differ" (p. 3-B). Pucel (1989) indicates:

> Affective behaviors are also analyzed in reference to [job] functions. Just as it would not be reasonable to analyze psychomotor behaviors relative to a role without identifying the role to be analyzed, it would not be reasonable to attempt to identify affective behaviors without identifying the role. What are role-related affective behaviors for one role are not necessarily role-related behaviors for another role. (p. 41)

Specific Affective Behavior Identification

Given that affective behaviors are viewed as critical to job success and they can be viewed as legitimate content for inclusion in vocational education and training in business and industry, how should they be identified? Traditionally, job-related affective behaviors have been viewed as subsidiary to psychomotor behaviors. This has been the result of the industrial age focus on preparing people to manipulate things and to operate tools and equipment. This position relegates affective behaviors to being taught incidentally during the teaching of psychomotor tasks.

A typical methodology used to conduct such an analysis is the DACUM procedure (Norton, 1985). DACUM is an acronym for Developing A Curriculum. Its original goal was to produce a curriculum guide that would enhance trainee involvement in training programs and in planning for goal attainment. Jobs are analyzed in terms of duties (broad areas of responsibilities), and tasks (units of

behavior that result in a product, service, or decision). The DACUM model views attitudes or traits as aids in generating task statements.

Pucel (1989) proposes:

> A new framework is needed for the development of instructional programs, one that is adapted to the changed needs of society and accepts cognitive and affective behaviors on an equal par with psychomotor behaviors. All three behaviors must still be occupational related so the instruction is focused and functional, but each must have value in and of itself. (p. 12)

He suggests the analyses of affective behaviors should be conducted in reference to a specific job but not in reference to a specific task within the job. This is accomplished by analyzing affective behaviors relative to job functions (duties) in the same way that psychomotor behaviors (tasks) are analyzed without making affective behaviors task dependent. The analysis begins with the identification of the job or role for which training is to be provided. Major job functions are then identified. Separate analyses of psychomotor, cognitive, and affective behaviors are conducted in reference to the major job functions. This approach treats cognitive and affective behaviors equally with psychomotor behaviors while still maintaining a functional job relationship because of the need to analyze each type of behavior in relation to the major job functions.

He has also developed a set of curriculum development procedures consistent with this belief. They are included in the Performance Based Instructional Design System (PBID).

> The PBID system allows for the development of the equivalent of what has become known as competency-based vocational education for the delivery of psychomotor behaviors; in addition, it also presents techniques for the development of instruction at the same level of precision for occupationally specific cognitive and affective behaviors. (p. 12)

Summary

The review of the literature that suggests that affective behavior is viewed as a critical ingredient to job success. It also suggests that affective behavior contributes to job success in a number of different ways. However, there has been little curriculum development focused on teaching affective behavior. This appears to have been the result of an almost sole focus of vocational education and training in business and industry curriculum development procedures on psychomotor behaviors (tasks), a reluctance to teach affective behaviors that might illegally impinge upon the rights and privacy of individuals, and the lack of methodologies for addressing affective behavior. It is becoming apparent that the first two causes are no longer reasonable. Most people now recognize that vocational education and training in business and industry cannot maintain a narrow focus on the psychomotor domain in light of the occupational requirements of the information age. Legal requirements do not unreasonably restrict curriculum development. The requirements only ask that affective behaviors be justified in relation to jobs in ways similar to the ways in which psychomotor tasks have been verified in the past. The key missing ingredient appears to be adequate methodology to identify and teach critical job-related affective behaviors.

Statement of the Problem

This study was designed to develop and validate a procedure for efficiently identifying critical job-specific affective behaviors which need not be directly related to psychomotor tasks. Those affective behaviors were to be stated in behavioral terms as a basis for performance-based curriculum development.

The specific goals were to:

1. Develop a technique which would allow instructors and/or employers to identify and record affective behaviors relative to a specific job in a behavioral format.
2. Develop a technique to synthesize the lists of affective behaviors generated by individuals within a group into a composite list which represents group opinion.
3. Determine the extent to which the procedures produced stable lists between different groups of instructors and/or employers for the same job.

CHAPTER 2

LITERATURE REVIEW

This review of the literature focuses on (a) the historical treatment of affective behaviors in vocational instructional development, and (b) differences in perspectives about how they should be defined, identified, and taught.

Historical Perspective

Historically, affective behaviors (labelled most frequently as attitudes, feelings, or habits) have not received significant attention in instructional planning and delivery. Early industrial and vocational training focused primarily on tasks (psychomotor behavior) with cognitive aspects of curriculum seen as auxiliary knowledge supporting the performance of those tasks (Pucel, 1987). Affective behaviors were recognized in the context of teaching psychomotor behaviors, but curriculum development procedures rarely addressed them. In the 1950s and 60s, affective behaviors and attitudes became increasingly viewed as a separate classification of behaviors, rather than as behaviors attached to psychomotor skills. Prosser and Quigley (1950) included elements such as relationships with co-workers, social intelligence, and morale, in addition to skills and technical knowledge in their formula for job success. Bloom (1956), in Taxonomy of Educational Objectives: The Classification of Educational Goals, Handbook I: Cognitive Domain, recognized that behavioral objectives could be developed around three types of behavior: (a) cognitive, (b) affective, and (c) psychomotor. Gagne (1965), in The Conditions of Learning, focused on five different capabilities of people: (a) intellectual skills, (b) cognitive strategies, (c) verbal information, (d) motor skills, and (e) attitude.

Besides identifying affective behaviors as a separate domain, people began to believe that one could teach affective behavior. In 1950, Thorne, Boles, and O'Leary postulated that work habits could be learned through intensive training. This idea was contrary to the view that work attitudes and habits were incidentally or haphazardly acquired as by-products of skill training.

With the increased awareness of belief that affective behavior is separable from psychomotor behavior, researchers began to pay more attention to the study of the impact of affective behavior on performance. Kazanas (1978) stressed that psychological and sociological aspects of employees were important to organizational success. Beach et al. (1978) indicated:

> With advancing technology, the occupational structure of our society is changing from that of producing goods to that of providing services . . . . With this occupational shift . . . work values, work habits, and work attitudes have become the criteria for job survival. (p. 4)

Job satisfaction was also linked to successful affective behaviors in the area of interpersonal skills, and relationships with co-workers and employers (Beach, Kazanas, & Smith, 1982). Brauchle and Petty (1983) related success in the transition from school to work to the acquisition of certain affective behaviors.

Although there was increased awareness of the impact of affective behavior upon a person's success in both school and work settings, there remained a reluctance to integrate the teaching of such behavior into curriculum. Essex and Liu (1974) partially attributed this resistance to a concern for students' rights to privacy and the belief that schools should not intervene by attempting to teach attitudes. Affective behaviors were also viewed as difficult to identify (Atwood, 1973), and difficult to measure because of the diverse ways attitudes and feelings are shown by different people (Ohio State University, 1977).

Another problem facing researchers was the generalizability of critical affective behavior to different work settings. Many researchers initially concentrated on the identification of general affective behaviors that supposedly had relevance to a wide range of jobs. For example, O'Neil and Nelson (1978) developed the Occupational Survival Skills (OSS) list in a study designed to identify "common skills (basic knowledges, traits, and competencies)" needed for success in jobs and in transitions from one job to another. Examples of affective elements in this list were "to be dependable," "to get along with people with a variety of personalities," and "being loyal." An additional product of this study was an analysis of these skills into nine occupational classifications. This analysis demonstrated differences in the skills that were important between white collar and blue collar occupations and produced a list of 17 skills that were considered important regardless of occupational classification. Instructional modules developed from the OSS list have been used to successfully teach occupational survival skills and attitudes (Leach, 1978).

Luft (1980) developed a list of 31 "nontechnical competencies" in a study designed with three purposes: (a) to determine the nontechnical competencies "important to employability," (b) to determine the agreement among employers on the importance of each competency, and (c) to determine consistency among employers, teachers/coordinators, and counselors associated with work experience programs on the importance ratings of these competencies. Luft defined nontechnical competencies as those "associated with the ethos of occupations, such as interpersonal relationships with peers and supervisors, work rules, and job finding." Examples of competency statements were "completes work in a thorough manner," and "uses time to the best advantage of the company." The results of comparing importance ratings among the three groups indicated that employers and teachers/coordinators were closer in their ratings than counselors.

Beach (1981) stated that "just as the requisites of skill and knowledge are different among occupations, it was revealed that the affective characteristics workers possess also differ" (p. 3-B). Prosser and Quigley (1950) wrote:

> Some habits may be common to all occupations. Promptness is a necessary habit common to all employment and anyone who has acquired a life habit of promptness has to this extent desirable environment habits. On the whole, however, each occupation makes its own demands as to the thinking, doing, and environment habits which it expects of the successful worker. This being true, vocational education finds it necessary to discard any idea of training in the fundamentals of thinking, or of doing, or of adaptation to environment, even if it be assumed that there are any such things as these fundamentals. Instead it sets up the theory of specific occupational requirements as follows: Each occupation has its own set of doing habits and thinking habits which carry over very little into other occupations. Therefore all vocational training must be specific in terms of the particular occupation for which the individual is to be trained. (p. 219)

Affective Behavior Instruction

After the emergence of the belief that affective behaviors were a separate domain of behavior requiring formal instruction, there was a need to develop methods of deriving content for instruction and to define the expected outcome of affective instruction. One way to define the expected outcome was as a performance goal. Such a performance goal was defined as the "demonstration of feelings, attitudes, or sensitivities toward other people, ideas, or things" in an Ohio State module on writing performance objectives (Ohio State University, 1977). Another method was to define general competencies and to then break them down further into performance indicators written in behavioral terms. These indicators are viewed as the visible or observable factors that should be used in the evaluation of attitudes or habits. An example given by Beach, Kazanas, and Smith (1982) of a general competency with its criterion (behavioral) indicators is:

General Competency: Pleasant/Friendly/Cheerful
Indicators:
1. smiles
2. greets others
3. speaks favorably
4. responds to greetings from others
5. encourages others, etc. (p. 30)

Beach et al. (1978), Petty, Kazanas, and Eastman (1981), and Miller and Usuro (1981) researched potential differences among workers, teachers, and supervisors in their ratings of the importance of affective work competencies in various fields. The results of these studies consistently found that teachers and supervisors found larger numbers of affective behaviors to be important for a given occupation than the workers themselves found.

Crosby (1984) described a process of creating job-specific affective behavior lists by beginning with a general list of attitudes and adding more specific attitudes to that list based on diversity of training, characteristics of student populations, and/or input from employers hiring graduates. Once

a complete list of general attitudes was obtained, he suggested that the instructor further break down the general attitudinal terms such as "ambition," "punctual," and "careful" into statements of observable behaviors that are relevant to a particular job. An example of this analysis using the attitude "ambitious" includes these statements: "(a) Finish what they are doing, (b) Try to do a better job, (c) Attempt new skills to help them succeed on the job, (d) Work hard at all times, (e) Try new and difficult assignments, and (f) Set goals that match individual abilities."

Methodologies

A number of methodologies have been used to develop affective behavior lists. These processes will be described in terms of (a) the origins of the basic lists; (b) the methods used to refine, consolidate, and validate the lists; (c) the methodologies used in categorizing the lists by occupations; and (d) the structures of the lists (e.g., written structure of behavior statements, criterion indicators). The research will be separated into those studies which have produced actual lists, and articles which describe processes for developing self-generated lists.

The most widely used method for generating the initial lists employed in the research has been a literature review combined, initially or in later analysis, with input from instructors and/or employers and supervisors. The original listing used in the development of the Occupational Survival Skills (OSS) began with more than 500 items which had been derived from a literature review and interviews (O'Neil & Nelson, 1978). The original Affective Work Competencies (AWC) list was derived from a computerized literature review of "thousands of relevant articles, books, and research reports" (Beach et al., 1982). It contained 59 behaviors. Luft (1980) began with a list of 95 competencies, also derived from a literature search. Crawford (1973) developed an interview guide from a literature review and job descriptions in order to establish lists of competency statements. By employing a less traditional form of literature review, Walls et al. (1979) sent an ad for existing checklists to journals, schools, and rehabilitation facilities, and created their own checklist from the 200 lists which were received in response to the advertisement.

Another methodology used in the literature was generating the competency lists from interviews alone. Santopolo and Kell (1973) interviewed workers who had been on the job for more than three months, and analyzed critical incidents in order to determine behaviors that were critical to effective performance of the job. This is the only study reviewed where the information was derived from the employees only, and input from instructors, supervisors, or employers was not obtained. Additional methods recommended in the literature include using job descriptions (Banks, 1973), and observation (Atwood, 1973; Schmidt, 1970).

Once the initial listings have been obtained, the next step has been to consolidate or cluster the items and/or to determine the reliability and content validity concurrently. In most studies a panel of experts or an advisory board has been used in this process.

In the development of the AWCs, the original listing of statements was consolidated into 15 clusters "according to their common elements" (Beach et al., 1982). A panel of experts was used later to determine the content validity of criterion indicators as they were matched with these clusters.

In the development of the OSS list, input was sought from 300 people which included a panel of education experts. The panel reduced the list of 500+ items to 27 basic occupational survival skills. Luft's (1980) original list of 95 nontechnical competencies was condensed to 31 by a panel of experts at the same time as their content validity was determined.

The most widely used resource for determining content validity of lists and/or the validity of criterion statements has been the use of advisory boards or panels of experts. The most commonly used tool for determining content validity, categorizing behaviors, and condensing lists, has been a rating scale. Murphy (1972) reported using a 3-point scale with the labels "essential," "useful," and "not important." Luft (1980) reported using a 4-point scale, as do O'Neil and Nelson (1978), with the OSS list. A 5-point scale was used to establish content validity with the AWC list (Beach et al., 1978).

Both the AWC and the OSS lists were also classified into categories. Beach et al. (1978) reported that 9,000 inventories were administered to students, teachers, supervisors, and workers throughout Missouri in order to determine which competencies were most important in specific occupations. O'Neil and Nelson (1978) reported that 589 telephone interviews were conducted with people randomly selected through phone books to establish which skills were essential in different occupational classifications.

There are several approaches to the format in which the affective behaviors have been written in the literature reviewed. The format is usually representative of the approach or model used for curriculum development. Luft (1980) stated the nontechnical competencies in behavioral terms. An example is "The student uses time to the best advantage of the company." The OSSs are written in phrases (e.g., "to be dependable," and "to get along with people with a variety of personalities") (O'Neil & Nelson, 1978). The competency clusters of the AWCs are adjectives (e.g., pleasant/friendly/cheerful) and the criterion indicators are verbs or phrases descriptive of a specific behavior or performance (e.g., smiles, greets others, speaks favorably) (Beach et al., 1979). Bernatovicz and Clasby (1984) used a functional job analysis approach, listing behavioral indicators with each identified competency. For example, the maturational competency category of one job analysis included the following behavioral indicators: (a) job commitment, (b) sense of responsibility, (c) grace under pressure, and (d) assertiveness. Crawford (1973) determined critical tasks, or job duties, and developed accompanying lists of competencies in terms of a knowledge, understanding, skill, or

attitude needed to perform each task. Santopolo and Kell (1973), in determining behaviors that were critical to effective performance of a specific job, produced a list of behavior statements (e.g., "working closely and continuously with clients," and "being positive, enthusiastic"). Walls et al. (1979) created a checklist that contained skills that are behaviorally defined, and are accompanied by conditions and standards. An example of such a behaviorally defined skill is "Client will ask the co-worker if the client can assist."

Two processes were reported for allowing individuals to generate their own lists of skills and behaviors: a training module developed by Ohio State University for writing performance objectives, including affective behaviors (Ohio State University, 1977), and the DACUM process (Norton, 1985). The Ohio State Module teaches the writing of performance objectives in the format of performance, condition, and criterion. Affective behavior is defined as "the demonstration of feelings, attitudes, or sensitivities toward other people, ideas, or things." In generating the performance objectives, the writer is instructed to think about feelings or attitudes that are required at entry level by the employer, to determine what type of behavior would be exhibited by a person possessing the feeling or attitude, or to think about behavior patterns that might be observable in a particular situation. The product of this process is a list of behaviors (psychomotor, cognitive, and affective) necessary for performing a job.

The DACUM process involves the formation of a committee and a facilitated workshop format in which a job is analyzed into duties and tasks. The committee consists of 8 to 12 "expert workers" recruited from business and industry. The session is two to three days in length and is facilitated by a person who has completed training in the DACUM process and who demonstrates personality traits conducive to working well with people. The actual duty and task identification consists of the following steps:

1. Orient committee to DACUM.
2. Review job or occupational area of concern.
3. Identify the general areas of responsibility (duties).
4. Identify the specific tasks performed in each duty area.

The premises on which DACUM is based include (a) any job can be "effectively and sufficiently described in terms of the tasks that successful workers in that occupation perform," and (b) that "all tasks have direct implication for the knowledge and attitudes that workers must have in order to perform the tasks correctly" (p. 1). The specific analysis of affective behavior is not addressed.

The outcome of the DACUM process is a graphic representation of a job with duties analyzed by tasks or competencies, listed in a logical sequence. The tasks can then undergo an additional analysis to determine the specific skills, knowledge, and attitudes workers need in the actual curriculum development stage.

After the completion of the analysis process, DACUM recommends verification of the tasks by other experts to insure completeness and accuracy, and to determine if the tasks identified by the committee are in fact the important tasks of the job analyzed. Several verification methods are possible. A mailed rating scale may be used to evaluate tasks on their importance to the job, or frequency of performance. Another suggestion is to assemble a second committee and facilitate a formal verification process of the analysis. Data from the verification process are tabulated, usually by establishing frequencies and mean scores, and the analysis can be modified depending on the data summary. It is recommended that people selected as verifiers be carefully chosen, for example, by using experts from an occupational advisory committee, rather than randomly selecting from a group of practitioners.

Summary

The review of the literature revealed a growing need to provide affective instruction as part of job preparation programs. Although the need has been recognized for some time, only recently have people begun to address how job-related affective behaviors should be identified, specified, and used as a basis for instruction. A variety of approaches to specifying behaviors have been used. The two most common are (a) listing general work related attitudes, and (b) listing job specific behaviors in behavioral terms. Most lists found contained affective behaviors stated as general characteristics (e.g., punctual, ambitious, cheerful). Some lists have presented the behaviors in the same performance-oriented format used in specifying tasks (e.g., verb/object/qualifier). Lists have often been generated from reviews of the literature and validated by panels of experts (e.g., instructors, employers). Expert judgments about the importance of various behaviors have often been obtained through rating scales.

Few procedures have been developed which curriculum developers can use themselves to identify affective behaviors. Most of the studies identified utilized complex research methodologies which are beyond the scope of most instructors or curriculum developers. They require both extensive funds and expertise. Some are presented as part of instruction on writing instructional objectives. These procedures do not deal with establishing the validity of the affective behaviors. Other techniques suggest implying affective behavior from psychomotor behavior. None of these procedures appear to be sufficient to allow curriculum developers to develop valid lists of job-specific affective behaviors efficiently. Nor are they capable of meeting the validity requirements of EEOC regulations.

CHAPTER 3

METHODOLOGY

This study was designed to develop a procedure for determining the critical affective behaviors necessary for success in a given role or job. It was designed to yield a list of affective behaviors equivalent to a list of psychomotor behaviors which would be produced through task analysis. The list was to be useful as a basis for developing instruction in order to prepare people for a job. The specific study objectives were to:

1. Develop a technique which would allow instructors and/or employers to identify and record affective behaviors relative to a specific job in a behavioral format.
2. Develop a technique to synthesize the lists of affective behaviors generated by individuals within a group into a composite list which represents group opinion.
3. Determine the extent to which the techniques produce stable lists between different groups of instructors and/or employers for the same job.

The methodology developed for this study was based on the review of the literature and procedures presented in the text Performance-Based Instructional Design (Pucel, 1989). Performance-based instructional design (PBID) is founded on the belief that the identification of affective behavior must receive the same level of attention as that given to the identification of psychomotor and cognitive behavior, and that each must be identified in terms of broad job functions (duties) in order to ensure their occupational relevance in terms of a particular job.

The procedures for this study are described in terms of the subjects and the rationale behind their selection, the instruments and processes in each phase of the data collection, and the methods used to analyze the data.

Subjects

It was decided that the first test of the methodology should be conducted using an occupation in which affective behaviors were a major portion of the job. Likewise, the job needed to be well defined to ensure that the job functions to which people were relating while identifying the affective behaviors would be similar. This was necessary to ensure that each subject, when asked to complete the study materials, was identifying affective behaviors with the same job role in mind.

The field selected was cosmetology. The interaction with customers and co-workers is an important aspect of that occupation, and the functions of a cosmetologist have relatively little variation among different job settings. The training programs are governed by state licensure

requirements which ensure uniformity. Also, cosmetology programs are offered in the majority of technical colleges throughout the state of Minnesota.

One of the purposes of this study was to compare lists of affective behaviors produced by different groups for the same job. Two groups of instructors and one group of employers were sampled as a basis for these comparisons. The three groups were matched in terms of geographic location and technical college affiliation to equate them on rural vs. urban perspectives and curriculum development practices used in the schools.

A list of all technical college cosmetology instructors was acquired through the Minnesota State Board of Vocational and Technical Education. Pairs of instructors were sampled from the colleges and one member of each pair was randomly assigned to each of the two instructor groups, A and B. Each group consisted of 10 instructors.

Letters were sent to the instructors sampled which briefly described the study and requested their participation (see Appendix A). A payment of $120 was offered for cooperation in the research. Instructors who agreed to participate were asked to provide the name of a member of their program advisory committees who employed or supervised cosmetologists. These names represented the population from which the employer group was drawn. The employer group was formed by randomly selecting ten of the people nominated by the 20 instructors. Care was taken to ensure that the distribution of employers represented the same colleges as the instructors. Letters were then sent to the employer group describing the research, requesting participation, and indicating the payment for services (see Appendix A).

Instrumentation

Three different instruments were developed in order to implement the methodology. Each was designed to be used through the mail by an instructor, trainer, or curriculum coordinator. The goal was to create a methodology that was efficient as well as effective. This required each instrument to be accompanied by a set of instructions which would allow people to use it without the assistance of others.

Generation of Individual Lists

The first phase of this project was designed to result in a brainstormed list of affective behaviors that are critical to success in the field of cosmetology from each participant. A 19-page module, based on the PBID model, entitled Performance-Based Affective Behavior Identification Module was developed with self-guided instructions (see Appendix B).

The module described the importance of affective behaviors to the performance of role-related functions and the need for their inclusion in curriculum development. The subjects were first asked to generate a list of functions associated with a cosmetologist's role. Functions were defined as major

groupings of behaviors that are performed together and which have a common name meaningful to people performing the role (e.g., greet clients, diagnose electrical problems, maintain client files, sterilize instruments) which result in a more complex performance. They typically represent the performance subdivisions of a job, occupation, or role (Pucel, 1989). Pucel advocates writing functions in a performance format for ease of understanding and communication between individuals. The format consists of an action verb and object acted upon (e.g., maintain client files). The functions were then used as the basis for identifying the affective behaviors necessary to successfully perform the functions.

Second, participants were asked to identify affective behaviors associated with the functions. The three-part performance format for writing affective behaviors was the same as that used for functions except for the option of adding modifying information (i.e., action verb/object acted upon/modifying information). Modifying information was to be added to a behavior only when (a) the behavior chosen would be performed within the role differently under different circumstances, or (b) the applications of the behavior are so different that each would require different training in order for a person to learn them as separate behaviors.

Examples were provided to help the participants understand the framework of content analysis, to write functions, and to write affective behaviors. The resulting product from this self-instructional module was a list of critical role-related affective behaviors associated with functions. The analysis was accomplished on the PBID Analysis Matrix (see Table 1, Sample PBID Behavior Analysis Worksheet).

Procedurally, the PBID Behavior Analysis Worksheet was completed by first delineating functions on the horizontal axis, and then listing associated affective behaviors on the vertical axis. Each function was analyzed in turn. The first function was analyzed in terms of critical affective behaviors, then the second, and so on. A relationship between a behavior and a function was depicted by the X's in the matrix where the affective behavior and the function intersect. This resulted in a list of affective behaviors indexed to functions. Each affective behavior was indexed to each function to which it applied. After completion of this worksheet, the participants were instructed to keep the module for future reference and to return the worksheet by mail.

After the initial development of the study procedures, an advisory committee of people with backgrounds in curriculum development and/or cosmetology was formed. This committee met as a group, was oriented to the research project, and was asked to evaluate the instructional module. Comments and suggestions were recorded, and a revised module was developed which incorporated this input. The revision was then piloted with a group of graduate students in the fields of education and vocational education. The instrument was revised a second time, incorporating the feedback from that group.

Table 1

Sample PBID Behavior Analysis Worksheet

PBID BEHAVIOR ANALYSIS WORKSHEET

ROLE: Cosmetologist

FUNCTIONS

AFFECTIVE BEHAVIORS VERB | OBJECT | MOD. INFO	Operate appointment desk	Identify Client needs	Sanitize implements/equipment	Communicate with clients and employer	Perform retail sale	Maintain client records					
Treat clients with respect	X	X		X	X						
Respect clients' feelings during complaints	X	X									
Care for documents	X					X					
Respect safety rules			X								
Follow manufacturer instructions			X								
Care for tools/ equipment			X								
Maintain client rapport	X	X		X	X						
Attend to details	X	X	X	X	X	X					
Accept client/co-worker/employer suggestions	X	X		X	X						
Display ethical behavior in salon	X	X		X	X						

The module and a cover letter (see Appendix C) were sent to members of the samples. The original sample of 10 subjects in each group decreased to 8 and 7 in the two instructor groups and to 8 in the employer group. Some materials arrived past the deadline or were not returned, and one subject was hospitalized and unable to complete the project.

Creating a Total List for Each Group

The goal of the second phase was to produce one combined list of affective behaviors for each group that represented all contributions of the members of that group with duplicates eliminated. This procedure was intended to replace the need for group meetings which are expensive and time consuming. Since the procedure being developed was intended to be implemented by practitioners in the future, a member of each participant group was selected to synthesize the behaviors presented by individuals within a group. Coordinators were selected based on the quality of what they produced on their individual matrices. Quality was determined by the number of affective behaviors identified, and the extent to which format for writing affective behaviors had been followed.

After selecting the three coordinators, each was sent a letter requesting participation and a packet of materials. The packet included copies of the matrices from each member of their respective groups, a guide for the development of the combined list, and a summary sheet to be used for generating the composite list.

Each coordinator was offered $40 for his/her participation, and was requested to return the materials if he/she chose not to participate. All of the coordinators who had been selected agreed to participate.

The coordinators were asked to complete this task within a week and return the summary sheets by mail. Two of the three completed summary sheets were acceptable as products for further analysis. The third coordinator, however, did not follow the guidelines in the instructions. That coordinator added new information to the behavior list and did not just summarize information from the individual lists. Therefore, a replacement coordinator was selected for that group using the above criteria, and an identical request and packet of materials was sent to that person.

The completed summary sheet from the replacement coordinator also did not conform to the instructions, e.g., some affective behaviors were deleted and some were added at the discretion of the coordinator. As a result, a decision was made to revise the instructions for the coordinator's module. Three new coordinators were selected by the same criteria described above, and packets were sent out with the revised instructions.

The revised instructions did successfully produce the intended results. All three coordinators mailed in summary sheets that met the requirement of producing a combined list that included all contributions of each member of the group and eliminated any repetitions (see Appendix D).

Creating the Composite List for Each Group

The purpose of the third phase was to obtain a list of behaviors that represented group consensus. Group consensus is one of the most often used and accepted procedures for establishing the validity of behavior lists. Often group consensus is obtained through meetings which are time consuming and expensive. This procedure was developed to efficiently attain the same end. The unduplicated list of behaviors developed by each group coordinator was transferred onto a rating sheet that employed a 6-point Likert scale, with the following descriptors:

0 = not an affective behavior
1 = never important
2 = seldom important
3 = sometimes important
4 = often important
5 = very important

Participants were sent a cover letter (see Appendix E) and the rating sheet and asked to rate each behavior in terms of importance to success on the job. They were also instructed to complete a column labelled "same as" if they felt that one behavior was identical to another behavior that might have been described differently elsewhere in the list. Table 2 shows a sample PBID Affective Behavior Importance Rating Sheet. The participants were asked to complete and return the rating scales within one week. Average group ratings were calculated and used as a basis for determining group consensus as to the importance of a behavior to success on the job.

Data Analysis

The purposes of the data analyses were (a) to determine whether the self-instructional module was effective in leading individuals to effectively yield lists of affective behaviors, (b) to determine whether the procedures for arriving at group consensus to produce group lists were effective, (c) to determine whether the lists produced by two groups of similar instructors were similar, and (d) to determine whether lists produced by instructors were similar to a list produced by employers.

The extent to which individuals could use the module to generate lists of behaviors was successful as determined by reviewing the lists of behaviors produced by individuals. The lists were reviewed to determine if the behaviors were affective behaviors and whether they were written in the correct format.

The extent to which the procedure for arriving at group consensus among a group to produce a composite list was successful was determined by the extent to which non-affective behaviors (e.g., psychomotor behaviors) generated by members of the group were eliminated by the group process, and the extent to which a group list of important affective behaviors could be generated.

Table 2

Sample PBID Affective Behavior Importance Rating Sheet

Name:_____ Date:_____

INSTRUCTIONS:

1. Refer to your manual to help you determine the differences between psychomotor, cognitive, and affective behaviors.

2. Using the rating scale below, rate each of the affective behaviors in terms of how important you think it is to being successful as a cosmetologist.

   0 **NOT AN AFFECTIVE BEHAVIOR**
   1 never important to success in the role
   2 seldom important to success in the role
   3 sometimes important to success in the role
   4 often important to success in the role
   5 very important to success in the role

3. If you feel a behavior is identical to another behavior listed, indicate the number of that behavior in the SAME AS column.

BEHAVIORS	RATING	SAME AS
1. Cooperate with co-workers	0 1 2 3 4 5	____
2. Cooperate with clients	0 1 2 3 4 5	____
3. Demonstrate professionalism	0 1 2 3 4 5	____
4. Respect client's feelings during complaints	0 1 2 3 4 5	____
5. Consult with clients	0 1 2 3 4 5	____
6. Cooperate with supervisors	0 1 2 3 4 5	____
7. Listen to clients	0 1 2 3 4 5	____
8. Perform safety rules	0 1 2 3 4 5	____
9. Respect clients	0 1 2 3 4 5	____
10. Respect co-workers	0 1 2 3 4 5	____
11. Adapt to schedules	0 1 2 3 4 5	____
12. Care of appointments	0 1 2 3 4 5	____

Similarity among the behaviors generated by the three groups was determined by examining the three composite lists of important behaviors. Similarity was judged based on common verb/object/modifying information behavior statements. The lists for the two groups of instructors were compared and the instructor group lists were compared with the employer group list.

Similarities between behaviors contained in the three lists were compared by entering each behavior into a data base program (dBase III+) in the form of the three parts of a behavior (verb/object/modifying information), the mean rating for the behavior, and the group that listed the behavior. Only those behaviors with mean ratings above 3.5 on the five-point scale were analyzed. A mean rating of at least 3.5 was judged to indicate that the behavior was at least "often important" to success on the job. Data within each group list were then sorted by verb and by object. The lists were then compared visually by three judges to determine the extent to which the behaviors within the lists were similar.

CHAPTER 4

RESULTS AND CONCLUSIONS

This study was designed to develop and validate a procedure for efficiently identifying critical job-specific affective behaviors. The affective behaviors were to be stated in behavioral terms as a basis for performance-based vocational education or training curriculum development.

The specific goals were to:

1. Develop a technique which would allow instructors and/or employers to identify and record affective behaviors relative to a specific job in a behavioral format.
2. Develop a technique to synthesize the lists of affective behaviors generated by individuals within a group into a composite list which represents group opinion.
3. Determine the extent to which the procedures produced stable lists between different groups of instructors and/or employers for the same job.

The results are presented in terms of each of these goals.

Develop a Technique Which Would Allow Instructors and/or Employers to Identify and Record Affective Behaviors Relative to a Specific Job in a Behavioral Format

Results indicated that the module was successful in enabling individuals to generate lists of affective behaviors necessary to perform in a given role (cosmetologist). Individuals were able to successfully generate individual lists of affective behaviors in the verb/object/modifying information format using the PBID affective behavior module. Table 1 contained in Chapter 3 presents a partial matrix of functions and associated affective behaviors developed by one individual. At times, a few psychomotor behaviors were also entered onto the list. However, they did not exceed 10% of a given individual's list.

Individual lists varied in length from 5 to 29 behaviors. The ranges between individual lists in instructor group A, instructor group B, and employer group E were 6-23, 10-29, and 5-12 respectively. Groups A, B, and E collectively submitted 126, 138, and 73 behaviors. There was only 1 subject of the 23 who seemed not to grasp the nature of the behavioral format. That person had items such as "discover client" and "initiate with client." Although the correct behavioral format was used (verb/object), the statements did not clearly convey the intended cosmetologist behavior.

It was concluded that the procedure presented in the module did allow individual instructors and employers to generate individual lists of job-related affective behaviors in a behavioral format.

Develop a Technique to Synthesize the Lists of Affective Behaviors Generated by Individuals Within a Group into a Composite List Which Represents Group Opinion

One individual in each group was selected as a "coordinator." That person simulated the role of a person who might be using the manual in the future to obtain the opinions of people as a basis for developing a curriculum. Each coordinator summarized the lists produced by individual members of his/her group onto a summary sheet. The first attempt at having coordinators produce summary lists was not successful. The procedure was modified and new coordinators selected. Using the modified procedure, coordinators were able to determine item duplications between subjects and were able to produce a composite list for their groups. The method used is described in Chapter 3.

The redundancies among the behaviors listed by individuals within a group were substantial. Sixty-eight percent (88) of group A's affective behavior statements, 28% (39) of group B's statements, and 34% (25) of group E's statements were included on the Affective Behavior Summary Sheets by the coordinators. In other words, the coordinator in group A left out 32% of the original affective behavior statements that were submitted by members of his/her group because it was felt they were redundant with other items already on the list. Likewise, 72% of group B's behaviors, and 66% of group E's behaviors were felt to be duplications and, thus, were left off by the coordinators for those groups. Three judges who were part of the project staff reviewed the redundancies as determined by the coordinators. The judges agreed with most of the redundancies. Appendix F presents the lists of behaviors developed by each group's coordinator, ordered by mean group ratings for each behavior.

Mean ratings for each behavior in each group were calculated as follows. The affective behaviors which each group's coordinator submitted were presented to members of the group on the PBID Affective Behavior Importance Rating Sheet (see Table 2 in Chapter 3). Group members were asked to rate each affective behavior in terms of its importance to successful performance as a cosmetologist. The importance of each behavior was rated on a Likert rating scale from 0 - 5. The previous chapter on methodology presents the procedure used and the descriptors associated with the ratings. The sum of the ratings assigned by members of a group were totaled for each behavior and divided by the number of members in the group to calculate a mean rating.

Besides asking individuals to rate the importance of each behavior, an attempt was also made to eliminate any remaining redundancies within the behaviors. A "same as" column was included on the PBID Affective Behavior Importance Rating Sheet. Analyses of responses in the "same as" column yielded no consistency between subjects within a group. Therefore, that procedure did not produce useful information.

As indicated earlier, some subjects listed a few psychomotor as well as affective behaviors. Those psychomotor behaviors were substantially eliminated from the final lists by the group rating

procedure. The fact that most people in a group rated the psychomotor behaviors zero (not an affective behavior) reduced the mean ratings of those behaviors for the group to below 3.5. Since subsequent analyses of the lists were limited to those behaviors which had mean ratings of 3.5 or higher, the psychomotor behaviors were eliminated from further analyses. A rating of 3.5 or higher was selected as the cut-off point because that rating indicates that a group perceived a behavior as being at least "often important." Sixty-nine behaviors on the list for group A had mean ratings above 3.5, 35 for group B, and 21 for group E.

It was concluded that the procedure for combining individual lists of job-related affective behaviors into a composite list representing group opinion was successful. The procedure not only yielded a composite list of affective behaviors but also eliminated non-affective behaviors mistakenly suggested by individual members of a group.

Determine the Extent to Which the Procedures Produced Stable Lists Between Different Groups of Instructors and/or Employers for the Same Job

Using a data base computer program (dBase III+), all behaviors for each of the three groups were entered using the format verb/object/modifying information. The behaviors in each group were then sorted based on object and verb. This was done to facilitate the examination of similarities between the types of objects and verbs suggested by the people among the three groups.

It was found that the format used to instruct subjects on how to state the affective behaviors magnified differences between groups and did not allow for efficient collapsing of behaviors to the same level of detail. The object of the behaviors had been allowed to include both the object and a modifying adjective. This required behaviors to be classified as different, based on the adjectives modifying the object, as well as the object. For example, consider the following five behaviors:

1. Respect rules.
2. Respect safety rules.
3. Respect sanitation rules.
4. Respect laws.
5. Respect state laws.

Each has the same verb and there are only two objects (rules and laws). However, as they are written, they represent five behaviors. To facilitate data analysis, the behaviors were reformatted to place the modifying adjectives into the modifying information. For example, during analysis, "respect sanitation rules" was converted to "respect rules of sanitation." When the modifying adjectives were placed with the modifying information, the five behaviors above could be collapsed into two higher level (more comprehensive) behaviors: "respect rules" and "respect laws." The detailed modifying information then answered questions like "What type?", "Where?", "For whom?", "When?", etc. This reformatting facilitated analysis of similarities while still allowing all separate behaviors to be fully differentiated (e.g., the five separate behaviors above).

Once the behaviors were reformatted for analysis, they were analyzed to determine the extent to which the objects of the affect, and the verbs which suggest the types of affect, were similar between the three groups. Appendix G presents the results of that analysis. The three groups developed behaviors which directed affect toward 60 objects. The types of affect were represented by 44 verbs.

Of the 44 verbs used to describe the types of affect needed by cosmetologists, 10 were used by all three groups. Those 10 verbs were used with 61 (49%) of the 125 behaviors identified by the groups. Another 12 verbs were used by at least two groups with 37 (29%) of the behaviors. Therefore, the 22 verbs that were used by at least two groups accounted for 98 (78%) of the behaviors listed by all three groups. The remaining 22 verbs were used uniquely by only one group with 27 (22%) of the behaviors. Group A accounted for 14 of the unique verbs; group B, 5; and group E, 3.

Of the 60 objects listed toward which cosmetologists direct their affect, 7 were used by all three groups. Those 7 objects were used with 49 (39%) of the 125 behaviors. Another 12 objects were used by at least two groups with 27 (22%) of the behaviors. Therefore, the 19 objects that were used by at least two groups accounted for 76 (61%) of the behaviors. The remaining 41 objects were used uniquely by only one group with 49 (39%) of the behaviors. Group A accounted for 23 of the unique objects; group B, 9; and group E, 9.

The analyses indicated that cosmetologists direct most of their affective behavior toward 19 objects and most of that affect can be categorized by 22 verbs. Recognizing that a substantial amount of the differences in the lists between groups seemed to be caused by different wording of behaviors, a list of 39 discrete behaviors (see Appendix H) was then developed based on an analysis of the total behaviors, the objects, and the verbs. This list was developed by abstracting the essence of each affective behavior suggested by the groups and combining those with the same apparent intent into a composite behavior. This was done by a panel of three project staff judges who reviewed each of the three lists separately. The list was reduced in size to 39 discrete behaviors.

The extent of disagreement upon the exact job-related affective behaviors important to success as a cosmetologist between groups was still large. Six of the behaviors were stated by all three groups. Thirteen additional behaviors were stated by two of the three groups. Therefore, 19 (49%) of the discrete behaviors were stated by two or more groups. The remaining 20 (51%) behaviors were stated by only one group, with group A contributing 10; group B, 7; and group E, 3.

The analysis also clearly indicated that group A was the major contributor, with group B following. The employer group uniquely contributed only 3 (8%) of the behaviors over and above those contributed by the two instructor groups.

CHAPTER 5

DISCUSSION

The manual presented to individuals and the instructional materials presented to the coordinators yielded exactly what was intended. Individuals were able to generate lists of affective behaviors necessary to perform within the role of a cosmetologist. Not only did the manual allow subjects to generate affective behaviors, but they were also able to put the affective behaviors into a specific behavioral format (verb/object/modifying information). The coordinators were then able to take the original lists developed by individuals and summarize them onto a summary sheet, eliminating duplications between subjects. The members of a group were then able to assign importance ratings to each behavior which were used to arrive at group opinions.

Attempts to compare the similarity of behaviors generated by different groups indicated that each group had idiosyncratic items which were not represented in either of the other two groups. Although this finding was disappointing, it was not surprising. The validation procedure used in this study was substantially more stringent than that typically used to examine similarities of group opinion. Typical content analysis or task analysis validation procedures do not attempt to compare lists generated by different groups as this study did (e.g., group A vs. group E). Validation is usually accomplished by having a second group review the list produced by an original group. This typical procedure does not require two groups to independently conceptualize a job; it requires one group to do so and another to indicate that the conceptualization is reasonable.

The findings regarding similarities between lists generated by different groups raise questions concerning the stability of behavior, task lists, or content lists generated by different groups in general. This in turn raises questions about the importance of arriving at consensus between conceptualizations produced by different groups. Since most lists are used for curriculum development within a given context, validity as established by consensus among experts in that context is probably sufficient. This is the premise upon which DACUM and other procedures have been used for years. DACUM was developed to allow people to participate in defining the tasks to be taught in a program. It focuses on obtaining a valid list of tasks which can be politically supported by a group.

The PBID Affective Behavior Analysis procedure proved to be equally effective in accomplishing this goal. People in each group were able to arrive at a composite list of affective behaviors that represented group opinion.

The composite lists were arrived at in an efficient manner. Instruction regarding the procedures and data gathering were achieved through the mail without the need for costly group meetings. Individual experts (instructors or employers) were able to provide their own brainstormed lists of affective behaviors. Those behaviors were combined into a composite list and accepted or rejected based on group opinion (ratings). The result was a list which represented group opinion. The procedure was efficient because participants could complete the materials in a self-paced fashion.

The study leads to the overall conclusion that the Performance-Based Affective Behavior Identification process is an effective, cost-effective process for identifying role-related affective behaviors. The procedure can be implemented through the mail by a typical instructor or curriculum designer. It produces lists of affective behaviors stated in a behavioral format which represent group consensus. The process does not require the expense, time, and expertise necessary to implement procedures which require groups to assemble and group processes to be directed.

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APPENDIX A

INSTRUCTOR INVITATION

April 8, 1988

Dear _____,

We are asking for your cooperation in a study sponsored by the State Board of Vocational Technical Education. As you know, more people lose their jobs because of attitudinal problems than due to lack of skills. However, vocational education instructors do not have effective tools to identify what should be taught in order to help students avoid these problems. This study is designed to develop and evaluate a technique which can be used by instructors to identify affective behaviors critical to a specific role or job, as a basis for curriculum development. We have selected cosmetology as a field to pilot test the technique because people must possess cognitive, affective and psychomotor skills in order to be successful in it.

Your cooperation would require three types of input.

1. You would be asked to complete an instrument on which you could list affective behaviors people should have in order to perform as a cosmetologist.

2. You would be asked to recommend a member of your advisory committee to also participate in the study.

3. You would be asked to rate a list of affective behaviors generated from your input and that of other TI cosmetology instructors in the State.

We would greatly appreciate your participation in this study. In return for your effort, we would pay you $120.00 as a consultant. If you are willing to work with us, please complete and mail the enclosed form with both your name and the name of an advisory committee member. Your participation can help shape vocational education of the future.

Sincerely,

David J. Pucel
Professor and Director

Attachment:

ADVISORY COMMITTEE MEMBER INVITATION

April 8, 1988

Dear _____,

We are asking for your cooperation in a study sponsored by the State Board of Vocational Technical Education. You were recommended by a faculty member at _____ technical college to participate as a cosmetology program advisory committee member.

As you know, more people lose their jobs because of attitudinal problems than due to lack of skills. However, vocational education instructors do not have effective tools to identify what should be taught in order to help students avoid these problems. This study is designed to develop and evaluate a technique which can be used by instructors to identify affective behaviors critical to a specific role or job, as a basis for curriculum development. We have selected cosmetology as a field to pilot test the technique because people must possess cognitive, affective and psychomotor skills in order to be successful in it.

Your cooperation would require two types of input.

1. You would be asked to complete an instrument on which you could list affective behaviors people should have in order to perform as a cosmetologist.

2. You would be asked to rate a list of affective behaviors generated from your input and that of other TI cosmetology program advisory committee members in the State.

We would greatly appreciate your participation in this study. In return for your effort, we would pay you $120.00 as a consultant. If you are willing to work with us, please complete and mail the enclosed form. Your participation can help shape vocational education of the future.

Sincerely,

David J. Pucel
Professor and Director

Attachment:

APPENDIX B

PERFORMANCE-BASED AFFECTIVE BEHAVIOR IDENTIFICATION MODULE

David J. Pucel
Qetler TJ Jensrud
Susan R. Damme

Minnesota Research and Development Center for Vocational Education
Department of Vocational and Technical Education
University of Minnesota
St. Paul, Minnesota 55108
1989

AFFECTIVE BEHAVIOR IDENTIFICATION MANUAL

USER DIRECTIONS

This manual is designed to help you to identify affective behaviors that contribute to successful performance in a specific role or occupation. Affective behaviors are visible actions which communicate emotional tones toward people, data, and things. They are sometimes interpreted as attitudes. They often relate to the manner in which something is done and not to the process of actually doing it. They usually take the form of body language, words chosen, or the ways words are presented. Some examples of affective behaviors are cooperate with co-workers, attend to details, initiate in-shop repairs, and create an atmosphere of acceptance. We know that more people lose their jobs due to inappropriate affective behaviors than due to a lack of knowledge or ability to do the job.

This manual provides a step-by-step procedure to identify affective behaviors as the first step in the development of instructional programs which assist learners to prepare for future success. The eventual product is a list of role-related affective behaviors which should be considered for inclusion in an instructional/training program.

As you continue, **please read** the directions presented in this manual and follow them carefully. If you do not, it is very easy to get lost. **Do not** assume your past knowledge of content analysis is sufficient to complete this manual.

IDENTIFICATION OF AFFECTIVE BEHAVIORS

INTRODUCTION

More people lose their jobs because of inappropriate affective behaviors (e.g., attitudes) than due to a lack of knowledge or skill needed to perform the jobs. This manual presents a procedure for identifying the affective behaviors which are critical to success in a particular role (e.g., cosmetology). Identifying these behaviors is the first step in developing instructional materials to assist people with mastering these behaviors, and increasing their potential for success.

Definition of Behaviors

In order to perform successfully in a role, people need three types of job-related behaviors: psychomotor behaviors, cognitive behaviors, and affective behaviors. Psychomotor behaviors involve the physical manipulation of tools, objects, etc. Cognitive behaviors involve the processing of information and making decisions. Affective behaviors involve visible actions which communicate emotional tones toward people, data and things. Affective behaviors are communicated through body language, words chosen, and the way words are presented. Table 1 on the next page presents examples of each of these three behavior types.

Table 1

Sample Behaviors

Psychomotor	Cognitive	Affective
file correspondence	select a filing system	care* for documents
type a document	assign salaries	cooperate with co-workers

The process we will use for identifying affective behaviors comes from the Performance-Based Instructional Design (PBID) System (Pucel, 1986)**. This system is a comprehensive curriculum development tool that educators and trainers can use to determine and teach the behaviors needed by a person to perform a given role. The module you are working on is a part of that identification process, and focuses only on the affective behaviors needed for successful performance in a role. Before we start to identify specific affective behaviors, we must first identify the role you wish to analyze. It is necessary to keep this role in mind because critical affective behaviors are specific to a given role.

SPECIFYING THE ROLE

The first step in the process is to choose a **ROLE** for which you want to determine the necessary affective behaviors. **ROLES** can

* Care refers to the emotion of concern, as contrasted with maintaining something in a physical sense (e.g., to keep in repair).

** Pucel, D. J. (1986). Performance-based instructional design. St. Paul: Performance Training Systems, Inc.

be any paid or non-paid occupation (e.g., cosmetology, secretary, auto mechanic, nurse, homemaker). Identify the **ROLE** and write it in the space provided below.

_____

ROLE

FUNCTIONS

The next step is to determine the major **FUNCTIONS** people perform within the role. **FUNCTIONS** are defined in terms of major duties, problems to be solved, products to be produced, types of decisions to be made, systems to be maintained, and/or generic skills needed to perform a role (e.g., math skills). **FUNCTIONS** are major groupings of behaviors that are usually performed together and which have a common name meaningful to people performing the role (e.g., greet clients, diagnose electrical problems, maintain client files, sterilize instruments). They are the major activities that are assigned to people who perform a role.

FUNCTIONS are smaller than a role, but larger than a behavior. They usually include more than one behavior. They are the basic clusters of behaviors needed to accomplish a role. On the next page are some examples of **FUNCTIONS** for four different roles.

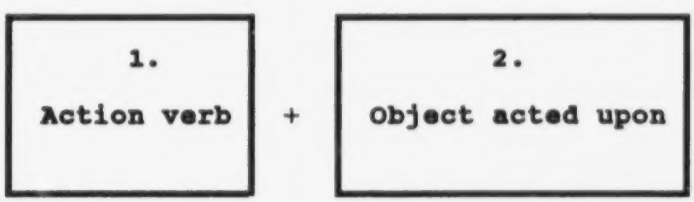
Typically a role can be broken down into from 5 to 15 **FUNCTIONS**. If you do not have at least 5, you are probably not

Secretary	Auto Mechanic
Greet clients	Diagnose electrical problems
Prepare payroll	Perform routine maintenance
Maintain filing system	Repair the cooling system
Duplicate materials	Record work activities
etc.	etc.
Counselor	**Nurse**
Maintain client files	Sterilize instruments
Maintain client rapport	Interface with patients
Discuss client concerns	Administer medication
Discuss client objectives	Maintain patient files
etc.	etc.

being specific enough. Likewise, if you have more than 15, you are probably being too specific and are not identifying the major subdivisions of the role. However, this is a guideline and you may have fewer or more **FUNCTIONS** depending upon the role you are analyzing.

Writing FUNCTIONS

FUNCTIONS should be written in a performance format. The format for **FUNCTIONS** includes two components:



The first component should be written as an action verb which would be used to direct a person to do something such as greet, prepare, maintain, duplicate, and answer. The verbs should not end with "ing" or "s".

The second component is the object acted upon. You can determine the object by asking yourself the question: "what" or "whom" after the verb you have selected. For example,

Selected Verb	Object
Greet	"whom"
Prepare	"what"
Maintain	"what"

The answers would be objects acted upon, such as:

Selected Verb	Object
Greet	clients
Prepare	payroll
Maintain	a filing system

Identifying FUNCTIONS

In order to identify **FUNCTIONS** for your role, think of yourself as the supervisor of a person in the role. What major activities would you typically assign to the person? Refer to the FUNCTION WORKSHEET on page 8. At the top of the page write in the role you identified on page 4. Identify the major **FUNCTIONS** for that role.

Remember:

1. **FUNCTIONS** can be duties, problems to be solved, products to be produced, types of decisions to be made, systems to be maintained, and/or generic skills needed to perform a role.

2. Functions are major groupings of behaviors.

3. They should contain a verb and an object acted upon.

FUNCTION WORKSHEET

ROLE: _____

MAJOR FUNCTIONS

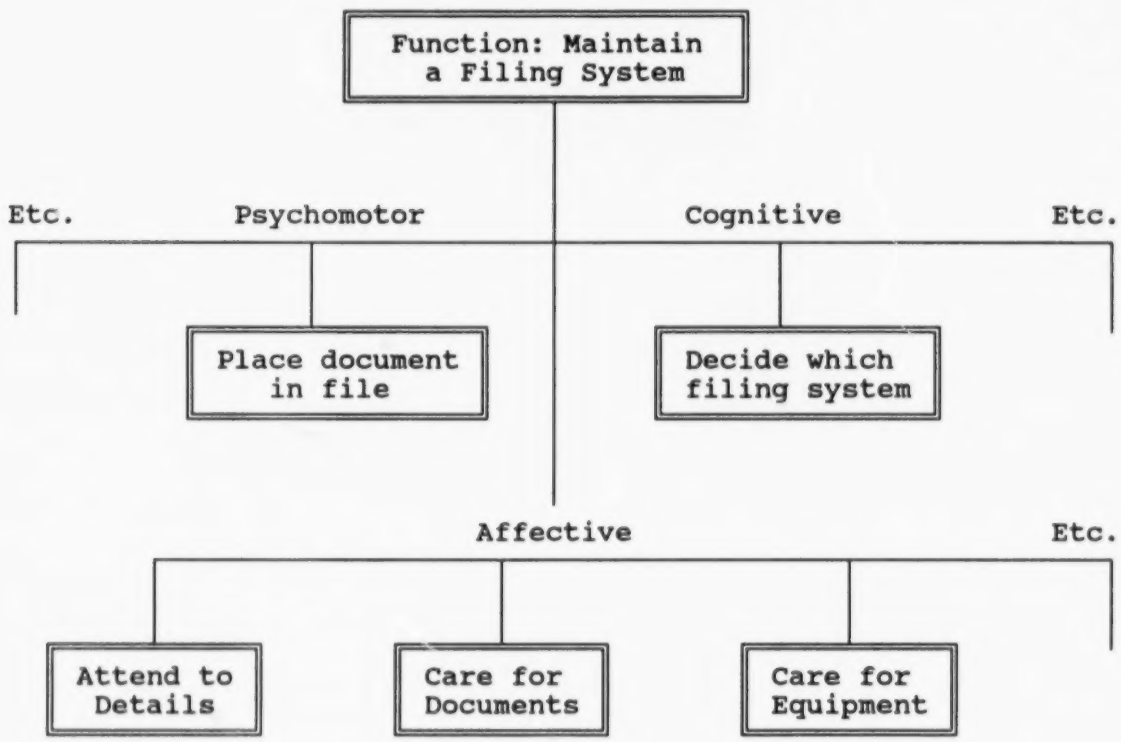
	ACTION VERB	OBJECT ACTED UPON
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

AFFECTIVE BEHAVIORS

Each function is accomplished by performing a variety of psychomotor, cognitive, and **AFFECTIVE BEHAVIORS** (See Chart 1 below). As you can see on the chart, in order to perform the function "maintain a filing system" within the role of a secretary, people must be able to perform psychomotor, cognitive and **AFFECTIVE BEHAVIORS**. Each function requires different combinations of each.

Chart 1

Secretary: Example Behaviors for a Specific Function



AFFECTIVE BEHAVIORS are usually performed while performing a psychomotor or cognitive behavior. For example, while placing documents in a file, one must "care for documents." While deciding which filing system to use, one must "attend to details."

As you continue, you should concentrate on the **AFFECTIVE BEHAVIORS**, in other words, the emotional tones toward people, data and things needed to successfully perform each function. Although you should not focus on how things and objects are manipulated (psychomotor behaviors) or how decisions are made (cognitive behaviors), you may need to think about them in order to identify the **AFFECTIVE BEHAVIORS**.

Before identifying the **AFFECTIVE BEHAVIORS**, you should be familiar with:

1. what role-related **AFFECTIVE BEHAVIORS** are and are not.
2. the format for writing **AFFECTIVE BEHAVIORS**.
3. some examples.

1. What role-related AFFECTIVE BEHAVIORS are and are not:

Role-related **AFFECTIVE BEHAVIORS** are the affective behaviors needed to effectively perform the function identified in the previous section. They are not global attitudes. Attitudes are often described using general terms such as enthusiasm, patience, neatness. These are not precise enough to focus and develop instruction to teach people to perform given roles.

In order to teach people **AFFECTIVE BEHAVIORS** which will increase their potential for success, the **AFFECTIVE BEHAVIORS** taught must be clearly defined and relevant to that role. They must be role-specific. For example, the **AFFECTIVE BEHAVIOR** "cooperate with co-workers" might not be needed to prepare for a role in which people always work alone. However, it would be needed if they are expected to work with others. To determine whether an **AFFECTIVE BEHAVIOR** is role-related, ask yourself the following questions:

1. Would the absence of this **AFFECTIVE BEHAVIOR** prevent a person from entering a specific role?
2. Would the absence of this **AFFECTIVE BEHAVIOR** prevent a person from continuing in that role?

2. **Format in which the AFFECTIVE BEHAVIORS are written**:

Behaviors should be written in a performance format. The format is very similar to that used to state functions. However, the format for a behavior can include three components:

1. Action Verb	+	2. Object Acted Upon	+	3. Modifying Information

The first two components are the same as those discussed in writing functions. The first component is a verb in the form of an action verb without any endings (e.g., "ing" or "s"). A list of sample affective verbs is presented in Appendix A on page 19, entitled SAMPLE AFFECTIVE VERBS. Many of the verbs that you

might need are listed, however, you may also use other verbs which communicate emotional tones.

The second component is the object acted upon. In order to identify the object, you should ask yourself the question to "what" or "whom," after selecting the verb. For example,

Selected Verb	Object
Respect	safety rules
Initiate	in-shop repairs
Care	for customer feelings

The third optional component is modifying information. Modifying information is added to a behavior only when:

1. the behavior chosen would be performed within the role differently under different circumstances.
2. the two applications of the behavior are so different that each would require different training in order for a person to learn them as separate behaviors.

Basically, the modifying information is used to differentiate the circumstances so different instruction would be developed to teach the behavior in each of the circumstances.

For example, you might want people to "respect customer feelings." If the manner in which one would respect customer feelings is the same in all circumstances within the role, there is no need for modifying information. However, if the manner in which one would respect customer feelings during complaints is sufficiently different from respecting customer feelings during a sale, the modifying information would be added. This would be

done to clearly define each of these behaviors as requiring separate instruction. Assuming they were sufficiently different, there would be two behaviors:

1. respect customer feelings during complaints.
2. respect customer feelings during a sale.

If they were not sufficiently different, there would be one behavior: "respect customer feelings." Table 2 presents samples of **AFFECTIVE BEHAVIORS** written in the above format.

Table 2

Sample Affective Behaviors

Role	Action Verb	Object Acted Upon	Modifying Information
Secretary	Attend	To details	
	Tolerate	Differences	
	Care	For documents	
	Share	Equipment	With co-workers
	Care	For equipment	
	Cooperate	With co-workers	
Auto Mechanic	Care	For tools/equipment	
	Care	For customer vehicles	
	Respect	Safety rules	
	Attend	To details	
	Share	Equipment	With co-workers
	Cooperate	With co-workers	
	Initiate	In-shop repairs	
	Respect	Customer feelings	During complaints
	Respect	Customer feelings	During a sale
Counselor	Adapt	To client emotions	
	Maintain	Client rapport	
	Attend	To details	Of discussion
Nurse Assistant	Respect	Patients	
	Adapt	To interruptions	
	Respect	Safety rules	

Listing AFFECTIVE BEHAVIORS

AFFECTIVE BEHAVIORS allow people to perform functions within a role. Therefore, they are analyzed in relation to functions associated with the role. Tables 3 and 4 present SAMPLE AFFECTIVE BEHAVIOR ANALYSES with partial lists of affective behaviors for the roles of Auto Mechanic and Secretary.

A behavior analysis is conducted function by function. This means that the first function is analyzed in terms of the role-related **AFFECTIVE BEHAVIORS** needed for its successful performance, then the second function is analyzed, and so forth until all the functions have been analyzed. In Table 4, starting with the function "greet clients," **AFFECTIVE BEHAVIORS** needed to greet clients were identified and listed. An "x" was placed after each of the behaviors under that function. After listing all of the **AFFECTIVE BEHAVIORS** needed to greet clients, the second function was analyzed, "prepare payroll." If a behavior that was identified when analyzing function one is also needed in order to carry out function two, it should not be entered again. Each behavior should appear on the list only once. If a behavior is important to more than one function, an "x" is placed in the row for that behavior under each function to which it pertains. (e.g., attend to details is important to each function).

Table 3

Sample Affective Behavior Analysis

Role: Auto Mechanic

Functions

Behaviors Verb | Object | ModInfo	Diagnose Electrical Problems	Perform Routine Maintenance	Repair the Cooling System	Record Work Activities	Communicate with Customers						Etc
Care for Tools/ Equipment	X	X	X								
Care for Customer Vehicles	X	X	X								
Respect Safety Rules	X	X	X								
Attend to Details	X	X	X	X	X						
Share Equipment with Co-workers	X	X	X								
Cooperate with Co-workers	X	X	X	X	X						
Initiate In-shop Repairs		X	X								
Respect Customer Feelings During Complaints					X						
Etc.											

Table 4

Sample Affective Behavior Analysis

Role: Secretary

Functions

Behaviors Verb | Object | ModInfo	Greet Clients	Prepare Payroll	Maintain a Filing System	Duplicate Materials	Answer Phones	Open/Sort Mail	Type Documents	Record Budget Items			Etc
Attend to Details	X	X	X	X	X	X	X	X			
Tolerate Differences	X				X						
Treat Clients with Respect	X				X						
Care for Documents		X	X	X		X	X	X			
Care for Equipment			X	X	X		X	X			
Share Equipment with Co-workers				X	X		X	X			
Cooperate with Co-workers				X		X	X				
Etc.											

Developing Your Affective Behavior Analysis Worksheet

Remove the PBID BEHAVIOR ANALYSIS WORKSHEET on page 20 from this manual. Copy the role and functions from the FUNCTION WORKSHEET on page 8 to the PBID ANALYSIS WORKSHEET. List the

functions across the top of the WORKSHEET. Complete the WORKSHEET by entering **AFFECTIVE BEHAVIORS** you feel are important to performing each function along the left-hand side. Treat this activity as a "brainstorming" session. There are no right or wrong answers. Write down any behaviors that come to mind. Do not worry if others might agree with you. This is a chance for you to express your opinion. Remember:

1. Do not use general attitudes (e.g., enthusiasm).
2. Use **AFFECTIVE BEHAVIORS** specific to the role (e.g., cosmetology, auto mechanic, legal secretary).
3. Follow the format for writing behaviors.
4. Use modifying information only if necessary.
5. Do not write down the same behavior twice (use "x"s).
6. Only identify **AFFECTIVE BEHAVIORS**.
7. Make sure each behavior applies to at least one function.

After you complete the PBID BEHAVIOR ANALYSIS WORKSHEET, please mail it in the self-addressed envelope. Keep this manual for later reference. Thank you.

Appendix A

SAMPLE AFFECTIVE VERBS

Accept	Acknowledge	Adapt	Address
Admit	Agree	Adopt	Aid
Allow	Anticipate	Appreciate	Argue
Assist	Attend	Avoid	Collaborate
Care*	Change	Comfort	Communicate
Comply	Consider	Consult	Contribute
Cooperate	Demonstrate	Disagree	Discuss
Display	Encourage	Establish	Excuse
Exhibit	Facilitate	Follow	Forgive
Foster	Give	Greet	Heed
Initiate	Interact	Invite	Join
Listen	Meet	Modify	Motivate
Observe	Offer	Participate	Permit
Persist	Praise	Preserve	Promote
React	Receive	Reciprocate	Relate
Rely	Reply	Resist	Resolve
Respect	Revise	Seek	Share
Simplify	Smile	Support	Talk
Thank	Tolerate	Treat	Uphold
Vary	Visit	Volunteer	

* Care refers to treating something carefully as contrasted with maintaining something.

PBID BEHAVIOR ANALYSIS WORKSHEET

ROLE: _____ FUNCTIONS

AFFECTIVE BEHAVIORS VERB | OBJECT | MOD. INFO															

PBID BEHAVIOR ANALYSIS WORKSHEET

ROLE: _____ FUNCTIONS

AFFECTIVE BEHAVIORS VERB | OBJECT | MOD. INFO															

APPENDIX C

MODULE COVER LETTER

June 24, 1988

Dear _____:

Thank you for agreeing to participate in the Affective Behaviors Project being conducted through the Minnesota Research and Development Center at the University of Minnesota. Enclosed are the materials which we said we would send you. The manual includes:

1. a procedure for identifying affective behaviors.
2. worksheets on which to record your analysis of affective behaviors associated with cosmetology.
3. examples of roles which have been analyzed using this procedure.
4. a pre-addressed envelope with which to return your analysis.

Remember, the goal is to generate a list of affective behaviors necessary to perform successfully within the field of cosmetology. It is important that you read the manual completely and carefully, and follow the directions step-by-step. No one will judge whether the items you list are right or wrong, so list all ideas that come to your mind.

If your summer address will be different from the one above, please fill out the attached address form. Please complete and return the address form and the analysis sheet by June 10. Your willingness to participate is appreciated and we are looking forward to receiving your materials.

Sincerely,

David J. Pucel
Professor and Director

DJP/kdp

APPENDIX D

COORDINATOR INVITATION LETTER

July 29, 1988

Dear _____,

Thank you for submitting your list of affective behaviors which you feel are important for success in the field of cosmetology. Some of your colleagues also submitted lists. We now need to develop a composite list which includes all the behaviors suggested. We would like to ask you to help us with that process. If you agree, we will pay you an additional $40.00. If you do not, please return all of the materials as soon as possible.

If you agree please continue. Open the enclosed envelope. You will find a set of directions and the lists of affective behaviors submitted by you and your colleagues. Complete the process that is listed on the enclosed **Directions to Coordinators**. REMEMBER, THE GOAL IS TO DEVELOP A COMPOSITE LIST THAT CONTAINS A TOTAL LIST OF ALL OF THE AFFECTIVE BEHAVIORS SUGGESTED BY ALL INDIVIDUALS. NONE SHOULD BE ELIMINATED AT THIS POINT. The only time one should be eliminated is if more than one person submitted the exact same behavior and it is obvious that the same behavior should not be listed twice. If there is any doubt about whether two behaviors are the same, list both of them. This includes the same behavior with different types of modifying information.

When you are done, send the materials back to the MRDC in the enclosed pre-addressed envelope. Please mail the materials back to us by August 8th so we can continue processing.

Again, we appreciate your participation and assistance with this research project.

Sincerely,

David Pucel
Director

DIRECTIONS TO COORDINATORS

Instructions:

1. Take the materials out of the envelope. There should be a number of copies of the PBID Analysis Matrix which have been completed and an Affective Behaviors Summary Sheet.

2. Take one matrix, copy the affective behaviors contained on that matrix onto the Affective Behaviors Summary Sheet. After you transfer each behavior to the Summary Sheet check it off on the PBID Analysis Matrix you are working with.

3. As you are writing the behaviors, be aware that each affective behavior statement must conform to the following format:

   Action Verb/Object Acted Upon/(Optional Modifying Information)

   Remember that the modifying information is optional. Only add it if one of the people has already listed it on her/his matrix.

   If you revise an affective behavior statement to conform to the format, do so WITHOUT CHANGING THE VERB, OBJECT OR ANY MODIFYING INFORMATION.

4. When all of the affective behaviors from the first matrix are listed (they have all been checked-off), take another matrix and add the affective behaviors from that matrix to the list. Make sure all behaviors are listed. Only leave a behavior off the list if it obviously is the same as one already on the list. **If there is any doubt, add the behavior to the list.**

5. Complete this process for each of the matrices making sure that all of the behaviors on all of the matrices are checked-off.

6. After you have listed all of the affective behaviors onto the Affective Behaviors Summary Sheet, place it into the pre-addressed envelope provided and mail it to the MRDC.

THANK YOU FOR YOUR HELP!!

Appendix D (continued)

AFFECTIVE BEHAVIOR SUMMARY SHEET

Coordinator Name: _____

ACTION VERB	OBJECT ACTED UPON	MOD. INFO. (optional)

Samples:

1. _____
2. _____
3. _____
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APPENDIX E

IMPORTANCE RATING COVER LETTER

August 12, 1988

Dear _____,

Thank you for generating and submitting the list of affective behaviors which are needed to be successful within the field of cosmetology. Several of your colleagues also submitted lists in participation to this project. We now need your help in rating each of the affective behaviors submitted.

Enclosed with this letter are the affective behaviors we received in the form of a rating scale. Use your judgment and rate each one of the behaviors submitted as to the level of importance it has to being a successful cosmetologist. Specific instructions are contained on the sheet entitled "Affective Behavior Importance Rating Sheet."

When you are finished rating the affective behaviors, please mail the rating sheet back to us by August 26th. Also, please mail back the "Critical Occupational Affective Behavior Identification Module" workbook with any comments you wish to relate to us. We will send you a copy of the final module we have developed. A stamped, pre-addressed envelope has been provided.

Thank you for your effort and we appreciate all your help in our study.

Sincerely,

David J. Pucel
Director and Professor

APPENDIX F

LIST OF BEHAVIORS ORDERED BY MEAN RATINGS

Instructor Group A

Affective Behaviors (N = 88)	Mean
Cooperate with co-workers	5.000
Cooperate with clients	5.000
Demonstrate professionalism	5.000
Observe state laws	5.000
Respect client's feelings during complaints	5.000
Consult with clients	4.857
Cooperate with supervisors	4.857
Listen to clients	4.857
Perform safety rules	4.857
Respect clients	4.857
Respect co-workers	4.857
Adapt to schedules	4.750
Care of appointments	4.750
Follow manufacturer's instructions	4.750
Greet clients	4.750
Comply with rules	4.750
Comply with sanitation	4.750
Tolerate different personalities	4.750
Promote sanitation	4.667
Resolve complaint	4.625
Accept responsibility	4.625
Respect client's opinions	4.625
Anticipate client's needs	4.571
Attend phone	4.571
Respect safety rules	4.571
Maintain client rapport	4.571
Respect sanitation rules	4.571
Resolve client complaints	4.500
Attend to details	4.429
Consult with co-workers	4.429
Consult with supervisors	4.429
Accept duties	4.429
Listen to co-workers	4.375
Attend to details with clients	4.375
Care for equipment	4.375
Promote your salon	4.375
Promote services	4.375
Consider feelings of others	4.375
Assist with duties	4.333
Care for clients during service	4.286
Encourage personal hygiene	4.286
Exhibit promptness	4.250

Appendix F (continued)

List of Behaviors Ordered by Mean Ratings (Instructor Group A), continued

Perform client services	4.250
Care for others	4.143
Attend educational shows	4.143
Tolerate differences	4.125
Comfort clients	4.000
Offer hairstyle change	4.000
Promote sales for future	4.000
Share salon responsibilities w/co-wkrs	4.000
Care of records	4.000
Motivate self during work day	4.000
Motivate others during work day	4.000
Uphold ethical behavior in salon	4.000
Accept suggestions	4.000
Support salon manager with salon	3.857
Interact with co-workers	3.857
Motivate staff	3.857
Attend to details with salon records	3.857
Initiate interest in salon	3.857
Display license	3.750
Avoid gossip	3.714
Document records	3.714
Assist co-workers while working	3.625
Encourage hairstyle change	3.500
Educate employees	3.500
Encourage change	3.500
Establish procedures	3.500
Care for documents	3.500
Share supplies with co-workers	3.375
Share equipment with co-workers	3.375
Relate costs	3.286
Offer new technical skills to clients	3.143
Facilitate the retail store	3.125
Seek new technical skills quarterly	3.125
Anticipate materials used	3.000
Follow color techniques	3.000
Initiate salon ordering	2.875
Appreciate beauty	2.875
Maintain equipment	2.857
Deal with supply companies and salesmen	2.750
Follow hairshaping techniques	2.750
Follow styling techniques	2.750
Complete state forms	2.625
Seek advice	2.375
File tax statements	2.250
Establish workable budget	1.750
Relate to ph scale	1.625

Appendix F (continued)

Instructor Group B

List of Behaviors Ordered by Mean Ratings

Affective Behaviors (N = 39)	Mean
Adopt good work habits	5.000
Assist clients with service	5.000
Comply with Minnesota state laws	5.000
Consult with client	5.000
Establish trust with clients	5.000
Listen to client's requests	5.000
Respect client's feelings during services	5.000
Treat clients with respect	5.000
Appreciate clients	4.857
Attend to details	4.857
Establish sound work ethic	4.857
Respect safety rules	4.857
Respect client's feelings during complaints	4.857
Anticipate client's needs	4.714
Encourage positive communication	4.714
Encourage clients	4.714
Respect manager	4.714
Promote professionalism	4.714
Care for equipment	4.571
Care for tools	4.571
Cooperate with co-workers	4.571
Respect co-worker's feelings	4.571
Support co-workers	4.429
Respect salon policies	4.333
Establish clients	4.286
Participate in development of skills	4.286
Care for records	4.143
Initiate client's services	4.143
Participate in salon sanitation	4.000
Preserve professionalism	4.000
Adapt to salon policies	3.857
Tolerate differences	3.857
Accept compliments graciously	3.714
Accept constructive criticism	3.714
Encourage co-workers	3.571
Reciprocate with assistance	3.429
Share information	3.429
Share equipment with co-workers	3.429
Share customers	2.571

Appendix F (continued)

Employer Group E

List of Behaviors Ordered by Mean Ratings

Affective Behaviors (N = 25)	Mean
Listen to client	5.000
Respect client's feelings	5.000
Respect client's feelings during complaints	5.000
Maintain client rapport	4.875
Respect client's choice	4.875
Keep client information confidential	4.500
Exhibit concerned for quality	4.500
Encourage courtesy	4.500
Tolerate differences	4.375
Attend to details	4.250
Dress self fashionably	4.125
Comply with salon rules	4.125
Cooperate with co-workers	4.125
Attend education classes	4.000
Promote fashion	4.000
Initiate salon cleanliness	4.000
Demonstrate interest	4.000
Follow manager's instructions	3.875
Share knowledge with customers	3.750
Record client services	3.625
Establish salon goodwill	3.500
Share information with co-workers	3.375
Care for equipment	3.375
Allow flexible appointments	3.000
Share equipment with co-worker	2.625

APPENDIX G

FREQUENCY OF OBJECT AND VERB USAGE
(3.5 ratings and above)

	Group				Group		
Objects N = 60	A	B	E	Verbs N = 44	A	B	E
Clients	7	6	1	Attend	5	1	2
Co-workers	6	3	1	Comply	2	1	1
Details	3	1	1	Cooperate	3	1	1
Differences	1	1	1	Encourage	3	3	1
Feelings	2	3	2	Establish	1	3	1
Rules	4	1	1	Initiate	1	1	1
Services	2	1	1	Listen	2	1	1
				Promote	4	1	1
Equipment	1	1		Respect	6	6	3
Ethics	1	1		Tolerate	2	1	1
Laws	1	1					
Manager	1	1		Accept	3	2	
Needs	1	1		Adapt	1	1	
Professionalism	1	2		Anticipate	1	1	
Records	2	1		Assist	2	1	
Sanitation	2	1		Care	6	3	
				Consult	3	1	
Instructions	1		1	Support	1	1	
Interest	1		1				
Rapport	1		1	Demonstrate	1		1
Self	1		1	Exhibit	1		1
				Follow	1		1
Appointments	1			Maintain	1		1
Change	3			Share	1		1
Complaints	2						
Documents	1			Avoid	1		
Duties	2			Comfort	1		
Employees	1			Consider	1		
Gossip	1			Display	1		
Hygiene	1			Document	1		
License	1			Educate	1		
Opinions	1			Greet	1		
Others	2			Interact	1		
Personality	1			Motivate	3		
Phone	1			Observe	1		
Procedures	1			Offer	1		
Promptness	1			Perform	2		
Responsibility	2			Resolve	2		
Sales	1			Uphold	1		
Salon	1						
Shows	1			Adopt		1	
Staff	1			Appreciate		1	
Suggestions	1			Participate		2	

Appendix G (continued)

	Group				Group		
	A	B	E		A	B	E
Supervisors	2			Preserve		1	
Schedules	1			Treat		1	
Communications		1		Dress			1
Compliments		1		Keep			1
Criticism		1		Record			1
Development		1					
Habits		1					
Policies		2					
Requests		1					
Tools		1					
Trust		1					
Choice			1				
Classes			1				
Cleanliness			1				
Concern			1				
Courtesy			1				
Fashion			1				
Goodwill			1				
Information			1				
Knowledge			1				
TOTAL	69	35	21	TOTAL	69	35	21

APPENDIX H

LIST OF DISCRETE BEHAVIORS (N = 39)

(3.5 ratings and above)

Behaviors	%	N	Subject Group A	Subject Group B	Subject Group E
Maintain client rapport			X	X	X
Listen to clients			X	X	X
Respect client feelings			X	X	X
Cooperate with co-workers	15%	(6)	X	X	X
Attend to details			X	X	X
Tolerate differences			X	X	X
Care for equipment			X	X	
Care for records			X	X	
Anticipate client needs			X	X	
Consult with clients			X	X	
Motivate others			X	X	
Respect co-workers			X	X	
Accept suggestions	28%	(11)	X	X	
Participate in upgrading skills			X	X	
Comply with state law			X	X	
Promote professionalism			X	X	
Promote safety and sanitation			X	X	
Exhibit ethical behavior	5%	(2)	X		X
Promote the salon			X		X
Assist co-workers			X		
Encourage hairstyle change			X		
Care for client comfort			X		
Cooperate with clients			X		
Greet clients			X		
Consult with co-workers			X		
Accept duties	26%	(10)	X		
Avoid gossip			X		
Encourage personal hygiene			X		
Follow instructions			X		
Assist clients with decisions				X	
Encourage clients				X	
Encourage positive communication				X	
Accept compliments				X	
Respect manager	18%	(7)		X	
Adapt to salon policies				X	
Adopt good work habits				X	
Encourage courtesy					X
Promote fashion	8%	(3)			X
Demonstrate interest					X